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| APPLICATION NO.                  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|----------------------------------|-------------|----------------------|---------------------|------------------|
| 10/551,936                       | 05/04/2007  | Outi Aho             | 10400-000299/US     | 3544             |
| 30593                            | 7590        | 06/03/2009           | EXAMINER            |                  |
| HARNESS, DICKEY & PIERCE, P.L.C. |             |                      | NELSON, MICHAEL B   |                  |
| P.O. BOX 8910                    |             |                      | ART UNIT            | PAPER NUMBER     |
| RESTON, VA 20195                 |             |                      | 1794                |                  |
|                                  |             |                      | MAIL DATE           | DELIVERY MODE    |
|                                  |             |                      | 06/03/2009          | PAPER            |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                   |  |
|------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/551,936 | <b>Applicant(s)</b><br>AHO ET AL. |  |
|                              | <b>Examiner</b><br>MICHAEL B. NELSON | <b>Art Unit</b><br>1794           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 12-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/09/07; 10/03/05</u> .                                      | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's election with traverse to Group I, claims 1-11, in the response filed on 02/13/09 is acknowledged. Applicant's traversal is on the grounds that the examiner erred in showing that the separate groups lack the same or corresponding special technical feature. The examiner disagrees. Applicant argues that the groups can possess "one or more" of the same or corresponding special technical features, however it has been shown that the various groups in this application lack one, let alone more than one, shared special technical feature which makes a contribution over the prior art. Applicant goes on to show various combinations of inventions which are considered to have unity of invention however these combinations do not relate to the instant inventions because the process does not specifically relate to the product (i.e. the product does not require that the electrically conductive polymer be "fitted" into the product) and because the use does not specifically relate to the product (i.e. the product does not require that the security symbol be detected via identifying the electrical conductivity of the paper).
2. Applicant alleges that the Beghello et al. reference which was cited in the initial restriction requirement does not read on the "figure representing a visual mark" limitations. While the examiner maintains that it would have otherwise been obvious to one having ordinary skill in the art to have provided an invisible security feature with a visual mark in order to identify the location for scanning of the feature, upon further inspection of the reference it has been found that Beghello et al. itself contains disclosure related to a visually identifiable mark ([0025]). In summation, the lack of unity of invention, due to the lack of a shared special technical feature as shown by Beghello et al., is deemed proper and the restriction is made

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FINAL. Claims 1-11 are currently under examination on the merits, claims 12-23 are withdrawn from consideration for being directed to non-elected subject matter.

***Claim Objections***

3. Claims 1 is objected to because of the following informalities: there are several spaces missing between words (i.e. “comprisesa paper”). Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 3 recites an “independently electrically conductive polymer” which renders the claim vague and indefinite in that it is unclear what is considered an "independent" electrically conductive polymer.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-6 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Behello et al. (U.S. 2002/0114931).

7. Regarding claims 1-6 and 11, Behello et al. discloses a security symbol for paper ([0011]-[0013]) which comprises electrically conductive polyaniline polymers, which can be rendered conductive or nonconductive by doping or dedoping with oxidation or reduction (i.e. acid or base) ([0014] and [0015]). The authentication is provided by detecting changes in the

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conductivity of the bar code type structure (Fig. 1 and 2 and [0019]). The security symbol is disclosed as being embedded into the security document ([0028]). Indicators are disclosed at [0025] which would indicate the presence and the general location of the security mark via a visibly identifiable figure (i.e. a shape or form).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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11. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beghello et al. (U.S. 2002/0114931) as applied to claim 1 above.

12. Regarding claims 7-10, Beghello et al. discloses all of the limitations as set forth above. While Beghello et al. does not explicitly disclose the perceived meaning of the identifying features disclosed at [0025], one having ordinary skill would have found it obvious that providing visual identification means to a security device intended to be scanned for electrical conductivity would make it evident to a person trained in validating the document where to scan it in order to detect the conductivity. It would likewise be obvious to provide the visual identification means ([0025]) at locations which have specific significance (i.e. the points 3, 4, 5 and 6 discussed at [0019]). The particular shape (i.e. graphic symbol) of the identifiers disclosed at [0025] would be a matter of aesthetic design choice and would therefore be obvious to one having ordinary skill in the art.

### *Conclusion*

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL B. NELSON whose telephone number is (571) 270-3877. The examiner can normally be reached on Monday through Thursday 6AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David R. Sample/  
Supervisory Patent Examiner, Art Unit 1794

/MN/  
04/27/09